

**FIG. 1**

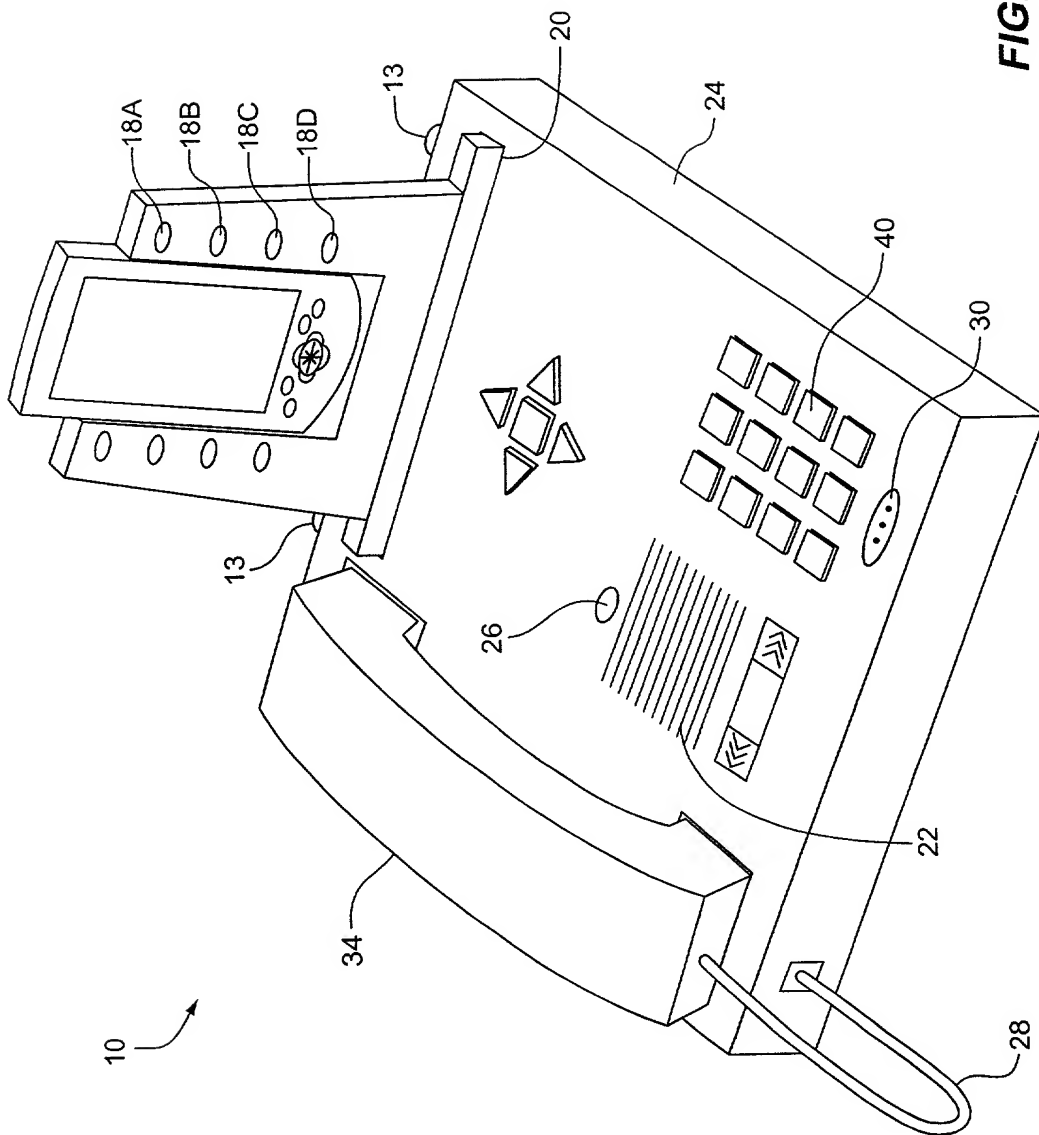
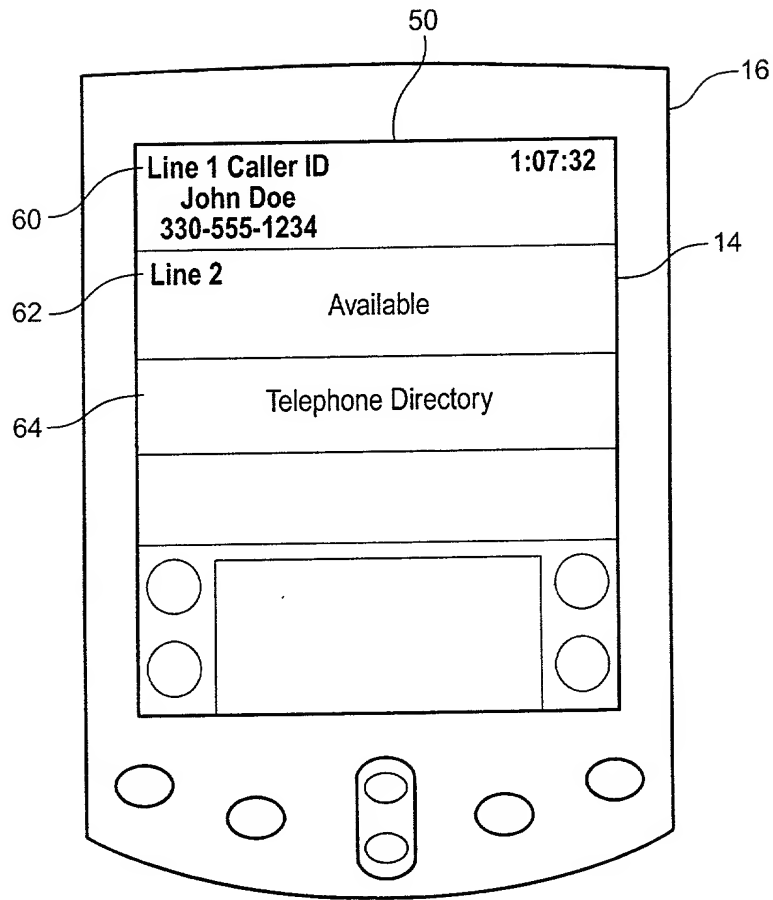
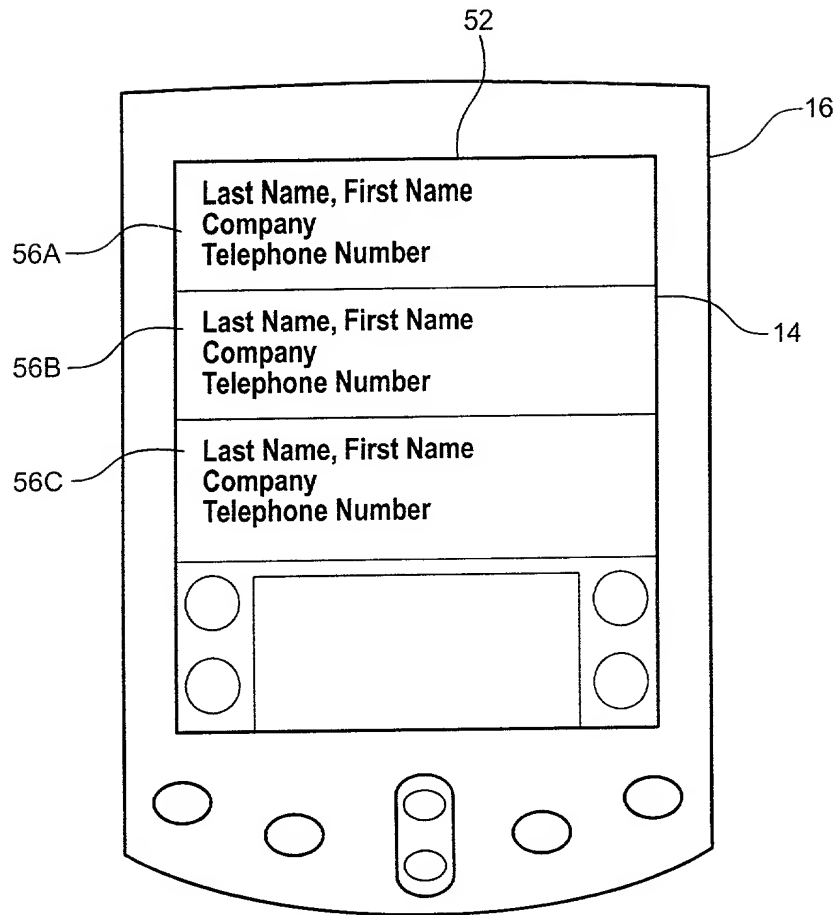


FIG. 2

**FIG. 3A**



**FIG. 3B**



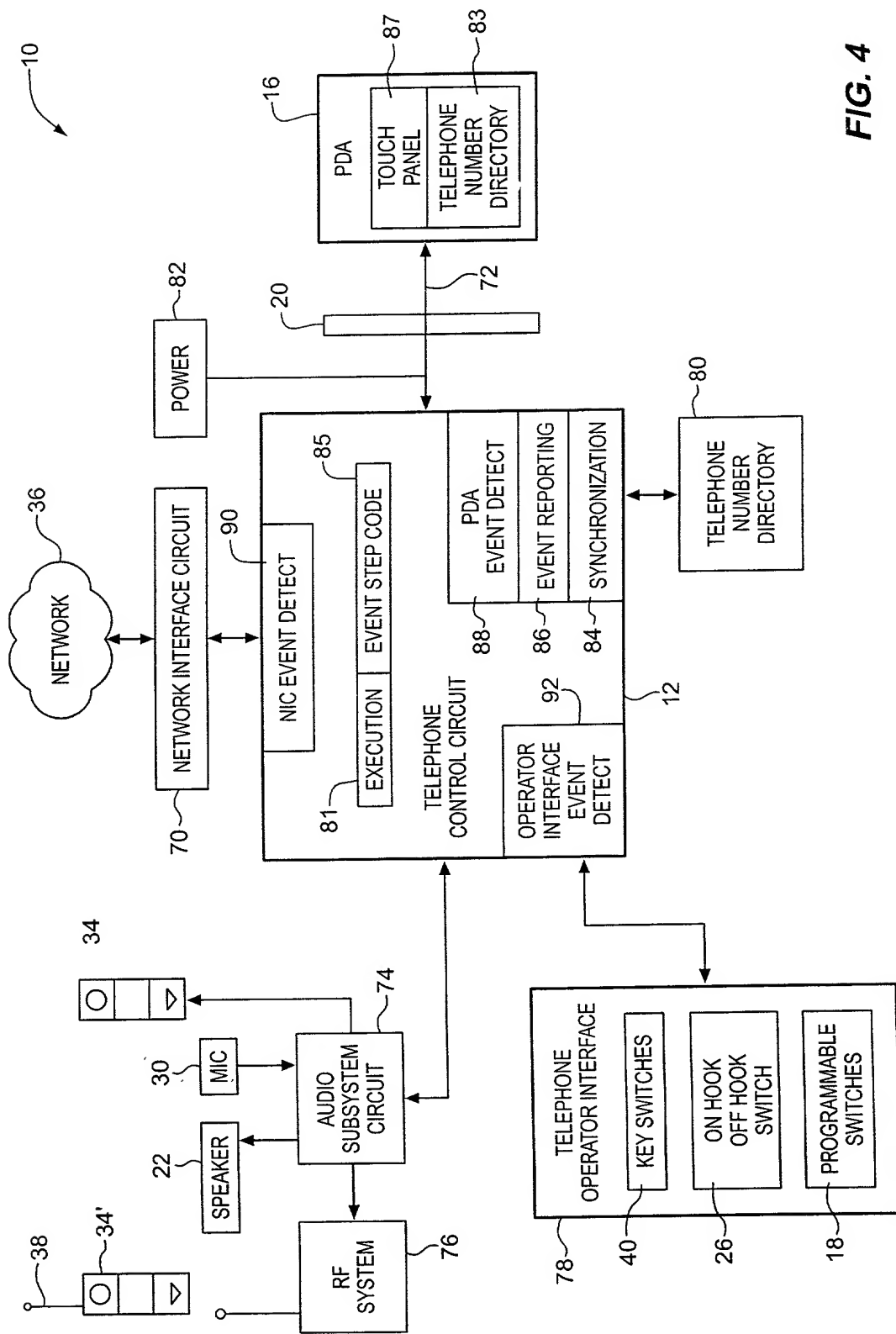
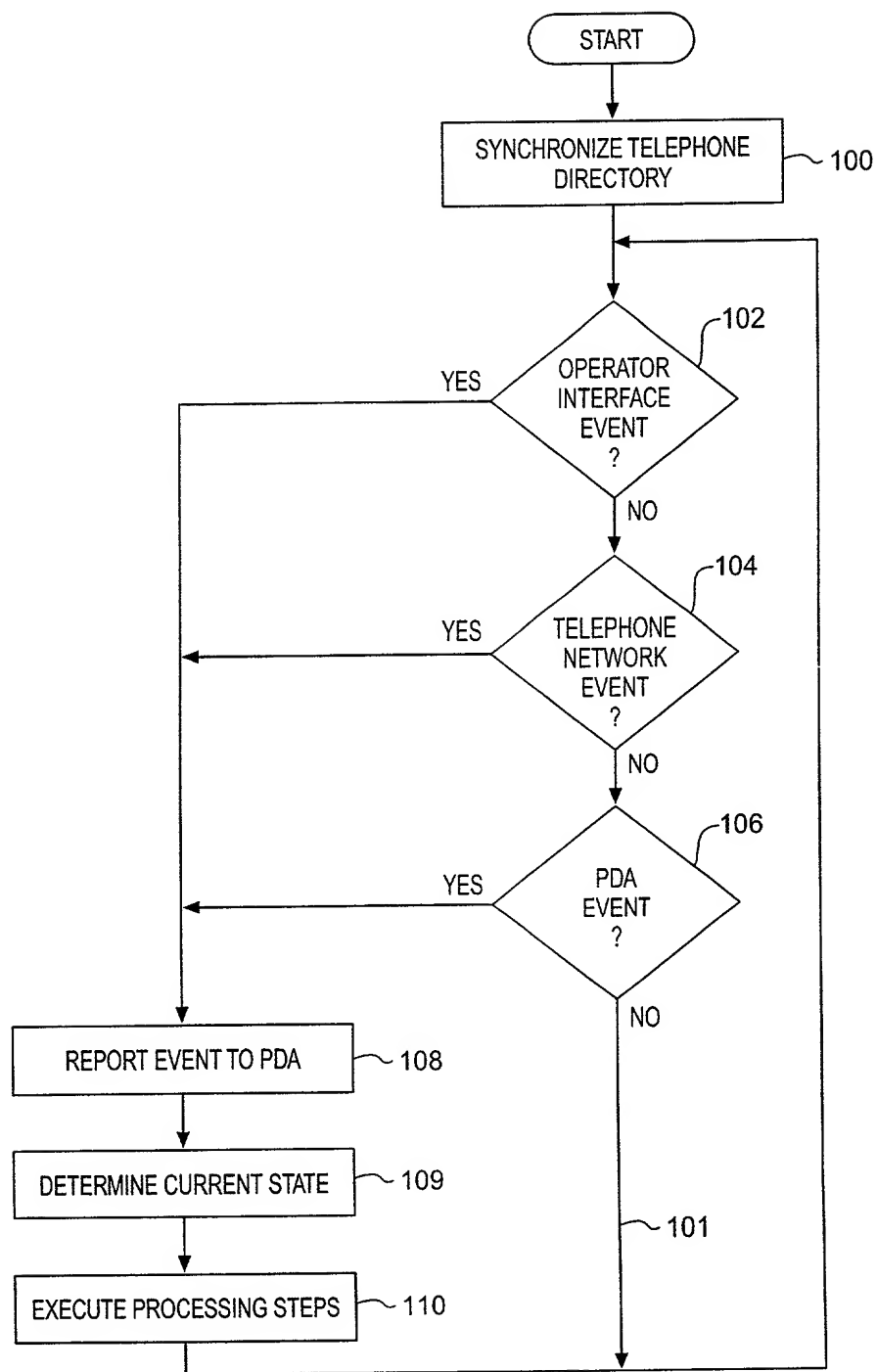


FIG. 4

CURRENT STATE	OPERATOR INTERFACE EVENT	TELEPHONE NETWORK INTERFACE EVENT	PDA EVENT	PROCESSING STEPS
STANDBY	OFF HOOK EVENT		OFF HOOK EVENT	TRANSITION TO OFF HOOK DT STATE
STANDBY		RINGING EVENT		TRANSITION TO RING STATE
STANDBY	TELEPHONE DIRECTORY SELECTION EVENT		TELEPHONE DIRECTORY SELECTION EVENT	TRANSITION TO OFF HOOK DT STATE DIAL IN ACCORDANCE WITH SELECTED TELEPHONE NUMBER
RING	OFF HOOK EVENT		OFF HOOK EVENT	TRANSITION TO OFF HOOK DT STATE
RING		RECEIVE CALLER ID		REPORT CALLER ID INFORMATION TO PDA
RING		TERMINATION OF RING EVENT		TRANSITION TO STANDBY STATE
OFF HOOK CALL	ON HOOK EVENT		ON HOOK EVENT	TRANSITION TO STANDBY STATE
OFF HOOK CALL		TERMINATION OF AUDIO STREAM		TRANSITION TO STANDBY STATE
OFF HOOK CALL	KEY SWITCH ACTIVATION EVENT		KEY SWITCH ACTIVATION EVENT	GENERATE SCRATCH PAD TONE
OFF HOOK DT	ON HOOK EVENT		ON HOOK EVENT	TRANSITION TO STANDBY STATE
OFF HOOK DT	KEY SWITCH ACTIVATION EVENT		KEY SWITCH ACTIVATION EVENT	GENERATE SCRATCH PAD TONES SETUP CALL WITH DIALED TELEPHONE NUMBER

**FIG. 5**



**FIG. 6**

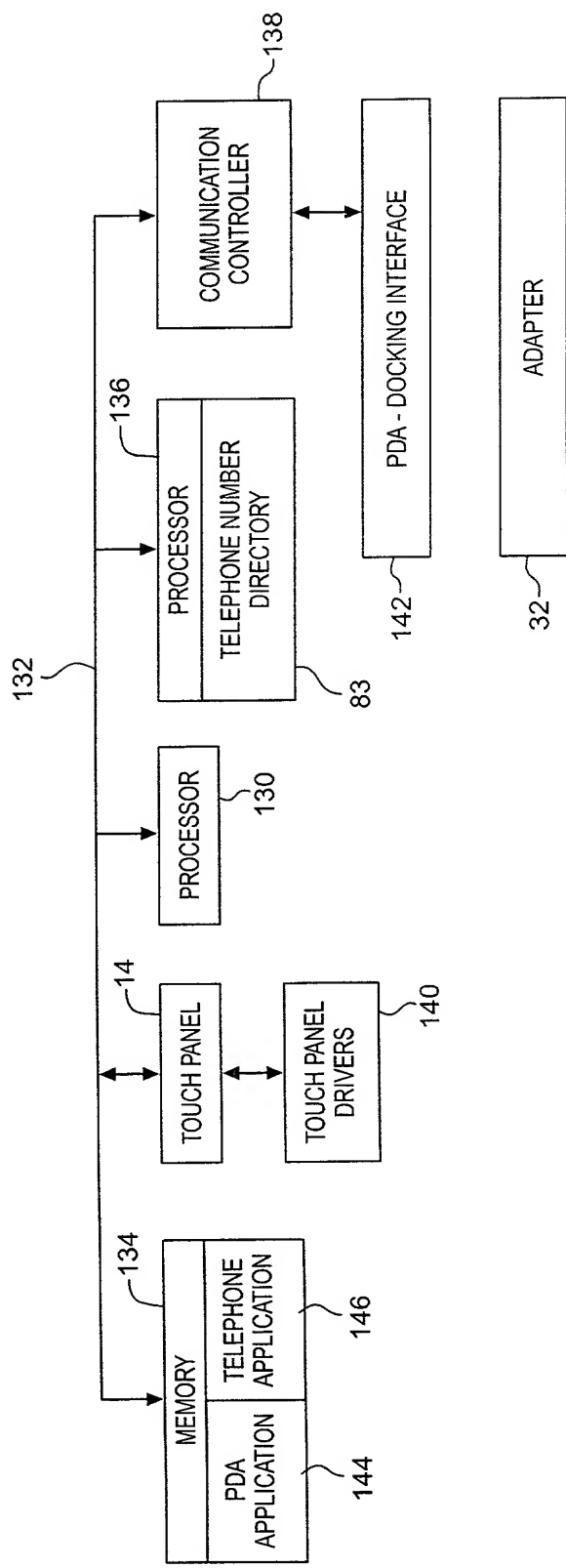
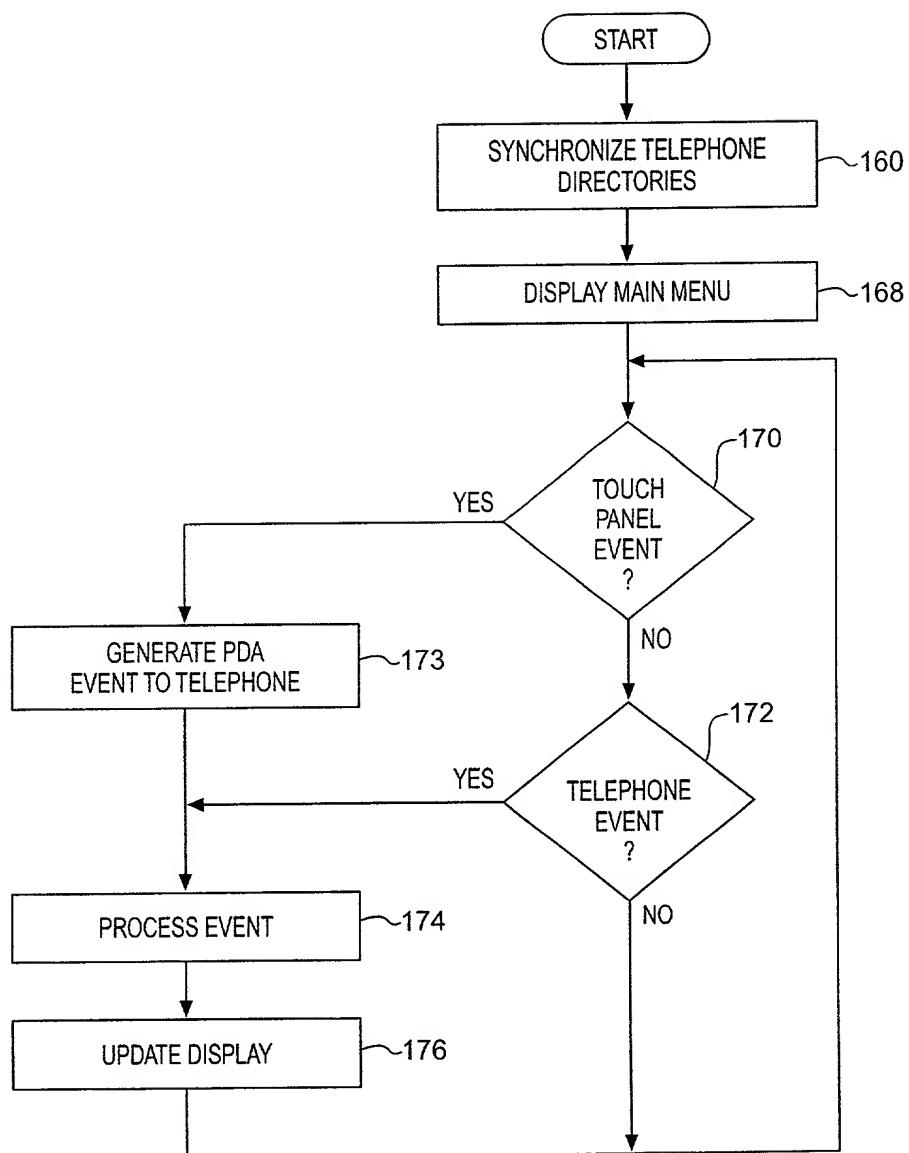


FIG. 7





**FIG. 8**

START UP STATE - WAITING FOR EVENTS	
EVENTS	STEPS
300 OPEN SESSION REQUEST ON PREDETERMINED PORT	<ul style="list-style-type: none"> <li>• ESTABLISH NEW LOCAL COMMUNICATION DEVICE STATE MACHINE</li> <li>• ESTABLISH SESSION</li> <li>• SEND LOGON CONTROL SCRIPTS</li> <li>• GET CSS INTERFACE CONFIGURATION</li> <li>• PROVIDE MAIN MENU DISPLAY CONTENT</li> <li>• PROVIDE MAIN MENU LAYOUT CONTROL</li> <li>• GO TO MAIN MENU STATE</li> </ul>

**FIG. 8A**

MAIN MENU STATE - WAITING FOR EVENTS	
EVENTS	STEPS
302 MENU SELECTION	• GO TO SELECTED STATE
308 INITIALIZE WAN SUBSCRIBER DEVICE	<ul style="list-style-type: none"> <li>• SEND ID EXTRACTION CONTROL SCRIPTS</li> <li>• GET SUBSCRIBER DEVICE ID</li> <li>• UPDATE NETWORK LOCATION TABLE</li> <li>• SYNCHRONIZE SUBSCRIBER CONTACT DIRECTORY</li> <li>• PROVIDE INITIAL DISPLAY CONTENT (MAIN MENU)</li> <li>• PROVIDE DISPLAY LAYOUT CONTROL</li> <li>• GO TO SUBSCRIBER DEVICE MAIN MENU STATE</li> </ul>
310 HELP REQUEST	<ul style="list-style-type: none"> <li>• SET UP AUDIO SESSION CHANNEL</li> <li>• TO AUDIO HELP CSS</li> <li>• GO TO AUDIO HELP STATE</li> </ul>

**FIG. 8B**

316		
SUBSCRIBER DEVICE MAIN MENU STATE - WAITING FOR EVENTS		
	EVENTS	STEPS
312	MENU SELECTION	• GO TO SELECTED STATE
320	HELP REQUEST	• PROVIDE HELP MENU DISPLAY CONTENT • PROVIDE HELP MENU DISPLAY LAYOUT CONTROL • GO TO GRAPHIC HELP STATE
322	MESSAGE REQUEST	• GET MESSAGES FROM REMOTE SYSTEM • SORT MESSAGES BY TYPE • PROVIDE MESSAGE LIST CONTENT
324	AUDIO MESSAGE REQUEST	• PROVIDE MESSAGE LIST LAYOUT CONTROL • GO TO MESSAGE LIST STATE
314	DIRECTORY REQUEST	• PROVIDE DIRECTORY CONTENT AND LAYOUT CONTROL • TRANSITION TO SUBSCRIBER DIRECTORY STATE
326	SUBSCRIBER DEVICE REMOVE	• GO TO MAIN MENU STATE

**FIG. 8C**

328

MESSAGE LIST STATE - WAITING FOR EVENTS	
EVENTS	STEPS
334 AUDIO MESSAGE SELECT	<ul style="list-style-type: none"> <li>• SEND AUDIO FILE TO CSS</li> <li>• PROVIDE PROCESSING SCRIPT TO OUTPUT FILE</li> <li>• GO TO AUDIO SESSION STATE</li> </ul>
336 MESSAGE SELECT	<ul style="list-style-type: none"> <li>• PROVIDE MESSAGE DISPLAY CONTENT</li> <li>• PROVIDE MESSAGE DISPLAY LAYOUT CONTROL</li> <li>• GO TO MESSAGE DISPLAY STATE</li> </ul>
338 MESSAGE PRINT	<ul style="list-style-type: none"> <li>• FORMAT MESSAGE CONTENT FOR PRINTER</li> <li>• SEND MESSAGE FILE TO PRINTER</li> <li>• GO TO MESSAGE LIST STATE</li> </ul>
340 HELP REQUEST	<ul style="list-style-type: none"> <li>• PROVIDE HELP MENU DISPLAY CONTENT AND DISPLAY LAYOUT CONTROL</li> <li>• GO TO GRAPHIC HELP STATE</li> </ul>
342 SUBSCRIBER DEVICE REMOVE	<ul style="list-style-type: none"> <li>• GO TO MAIN MENU STATE</li> </ul>

**FIG. 8D**

370

SUBSCRIBER DIRECTORY STATE - WAITING FOR EVENTS	
EVENTS	STEPS
372 RECEIVE CONTACT SELECTION	<ul style="list-style-type: none"> <li>• PROVIDE CONTROL SCRIPT TO SETUP AUDIO SESSION WITH CONTACT</li> <li>• PROVIDE AUDIO SESSION DISPLAY CONTENT AND LAYOUT CONTROL</li> <li>• TRANSITION TO AUDIO SESSION STATE</li> </ul>
374 HELP REQUEST	<ul style="list-style-type: none"> <li>• PROVIDE HELP MENU DISPLAY CONTENT AND DISPLAY LAYOUT CONTROL</li> <li>• GO TO GRAPHIC HELP STATE</li> </ul>
378 SUBSCRIBER DEVICE REMOVE	<ul style="list-style-type: none"> <li>• GO TO MAIN MENU STATE</li> </ul>

**FIG. 8E**

344

BASE STATE - WAITING FOR EVENTS		
	EVENTS	STEPS
354	TOUCH PANEL	<ul style="list-style-type: none"> <li>• REPORT TOUCH PANEL EVENT TO CONTROLLER</li> <li>• RETURN TO BASE STATE</li> </ul>
356	SUBSCRIBER INTERFACE CONTROL BUTTON	<ul style="list-style-type: none"> <li>• REPORT BUTTON ACTIVATION TO CONTROLLER AND PVA</li> <li>• RETURN TO BASE STATE</li> </ul>
358	RECEIVE DISPLAY CONTENT AND LAYOUT CONTROL MESSAGES	<ul style="list-style-type: none"> <li>• UPDATE DISPLAY</li> <li>• RETURN TO BASE STATE</li> </ul>
360	RECEIVE PROCESSING SCRIPT	<ul style="list-style-type: none"> <li>• PROCESS SCRIPT</li> <li>• RETURN TO BASE STATE</li> </ul>
362	WAN TELEPHONE SIGNAL	<ul style="list-style-type: none"> <li>• GO TO WAN STATE</li> </ul>
364	DETECT SUBSCRIBER DEVICE	<ul style="list-style-type: none"> <li>• SEND INITIALIZE SUBSCRIBER MESSAGE</li> <li>• RETURN TO BASE STATE</li> </ul>
350	RECEIVE MESSAGES FROM CONTROLLER DIRECTED TO SUBSCRIBER DEVICE	<ul style="list-style-type: none"> <li>• RELAY MESSAGES TO SUBSCRIBER DEVICE</li> </ul>
352	RECEIVE MESSAGES FROM SUBSCRIBER DEVICE DIRECTED TO CONTROLLERS	<ul style="list-style-type: none"> <li>• RELAY MESSAGES TO CONTROLLER</li> </ul>

START UP - WAITING FOR EVENTS		
	EVENTS	STEPS
366	NETWORK CONNECTION	<ul style="list-style-type: none"> <li>• SESSION REQUEST TO CONTROL UNIT</li> </ul>
368	RECEIVE LOGIN SCRIPT	<ul style="list-style-type: none"> <li>• PROCESS LOGON SCRIPT</li> <li>• PROVIDE INTERFACE CONFIGURATION</li> <li>• GO TO BASE STATE</li> </ul>

**FIG. 9**

380

STANDBY STATE - WAITING FOR EVENTS	
EVENTS	STEPS
388 AUDIO SESSION SIGNAL FROM PACKET VOICE GATEWAY	<ul style="list-style-type: none"> <li>• TRANSITION TO CALL SIGNALING STATE</li> <li>• REPORT STATE TRANSITION TO CSS APPLICATION</li> </ul>
390 SUBSCRIBER INTERFACE CONTROL (OFF HOOK)	<ul style="list-style-type: none"> <li>• TRANSITION TO OFF HOOK STATE</li> <li>• REPORT STATE TRANSITION TO CSS APPLICATION</li> </ul>
392 SESSION SETUP EVENT FROM CSS APPLICATION	<ul style="list-style-type: none"> <li>• SEND CALL SIGNALING MESSAGE TO GATEWAY</li> <li>• TRANSITION TO CALL SIGNALING STATE</li> <li>• REPORT TRANSITION TO CSS</li> </ul>

382

CALL SIGNALING STATE - WAITING FOR EVENTS	
EVENTS	STEPS
394 ON HOOK EVENT	<ul style="list-style-type: none"> <li>• RETURN TO STANDBY STATE</li> <li>• REPORT STATE TRANSITION TO CSS APPLICATION</li> </ul>
396 TERMINATION OF SIGNALING	<ul style="list-style-type: none"> <li>• RETURN TO STANDBY STATE</li> <li>• REPORT STATE TRANSITION TO CSS APPLICATION</li> </ul>
398 READY FOR AUDIO SESSION	<ul style="list-style-type: none"> <li>• TRANSITION TO AUDIO SESSION STATE</li> <li>• REPORT STATE TRANSITION TO CSS APPLICATION</li> </ul>

**FIG. 10A**

384

OFF HOOK STATE - WAITING FOR EVENTS	
EVENTS	STEPS
400 SUBSCRIBER INTERFACE CONTROL (KEY PAD ACTIVATION) FROM CSS APPLICATION	• GENERATE DTMF TONE
402 VALIDATION OF NUMBER SEQUENCE	• SEND CALL SIGNALING MESSAGES TO GATEWAY • TRANSITION TO CALL SIGNALING STATE • REPORT TRANSITION TO CSS APPLICATION
404 SUBSCRIBER INTERFACE CONTROL (ON HOOK)	• RETURN TO STANDBY STATE

386

AUDIO SESSION STATE - WAITING FOR EVENTS	
EVENTS	STEPS
406 TERMINATION OF AUDIO SESSION	• RETURN TO OFF HOOK STATE
408 SUBSCRIBER INTERFACE CONTROL (KEY PAD ACTIVATION)	• GENERATE DTMF TONE
410 SUBSCRIBER INTERFACE CONTROL (ON HOOK) FROM CSS APPLICATION	• RETURN TO STANDBY STATE

**FIG. 10B**